

Tuberculosis (TB)

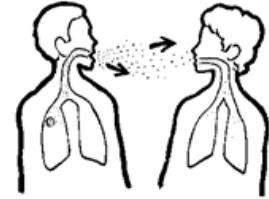
What is Tuberculosis?

Tuberculosis is an infectious disease caused by a bacterium called the mycobacterium. It invades the lungs, but can also invade other parts of the body, including the kidney, brain, and spinal cord.

How does tuberculosis infection spread?

Tuberculosis is transmitted through flying droplets from one person to another when sneezing, coughing and spitting or through direct contact or breathing contaminated air. However, it is not transmitted **through**:

- Handshaking.
- Sharing foods and drinks.
- Kissing.
- Using bathrooms.



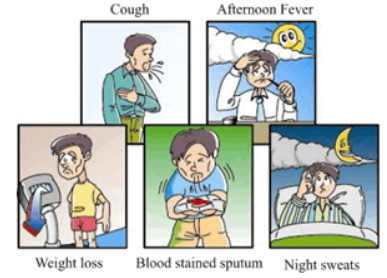
When someone is infected, tuberculosis follows one of two known patterns:

- Either they become carriers without showing any symptoms of the disease while the bacteria remain inactive thanks to the body's immunity against it. In this case, it is not infectious but may later be activated.
- Or they have active tuberculosis, and therefore show symptoms of infection. In this case, they can transmit the disease to others. It should be known that the symptoms only appear several weeks after the infection, or even months or years later.



Symptoms:

- Persistent cough for three weeks or longer.
- Coughing up blood.
- Chest pain that worsens when breathing or coughing.
- Loss of appetite and weight.
- Laziness.
- High fever.
- Sweating, especially at night.
- Blood in urine in case the kidneys become infected.
- Back pain in case the spleen becomes infected.



People at Higher Risk:

- People with HIV and AIDS.
- Diabetic patients.
- Some cancer patients receiving chemotherapy.
- People who have undergone organ transplantation and are now on immunosuppressive drugs.
- People taking certain drugs to treat rheumatism and psoriasis.
- Living in or travelling to areas with high incidence of tuberculosis, such as: South Africa, India, China, Mexico and some East Asian countries.
- Having daily contact with an infected person. Therefore, caution should be taken to wear a face mask and wash hands frequently when coming into contact with their personal tools.

Diagnosis:

Two tests are performed for suspected patients:

- **Skin Test:** It is performed by injecting a fluid (tuberculin) into the skin of the lower part of the arm. The reaction on the arm is then examined two to three days later.



In the event of developing a swelling or induration on the injected area, the diameter is measured, and the test is deemed positive if the diameter is equal to or greater than 10 mm. This indicates the presence of the tuberculosis-causing bacteria.

- **Blood Test:** The test is known as IGRAs. It measures the body reaction to the tuberculosis-causing bacteria. If positive, the diagnosis is confirmed by further tests to assess disease activity.

Other tests to determine disease activity:

- Physical examination (signs and symptoms).
- X-ray scans.
- Sputum examination to detect and identify bacteria.
- Checking for family history of tuberculosis.

Treatment:

Tuberculosis treatment takes a long time ranging from 6 to 9 months.

Drugs used to treat tuberculosis are:

- Isoniazid.
- Rifampin.
- Ethambutol.
- Pyrazinamide.

After several weeks of treatment, the patient begins to feel better and becomes less likely to be contagious. However, treatment should be continued for the whole course as prescribed.

Anti-tuberculosis Drug Resistance:

It is the ability of bacteria to resist the drugs used for treatment. This resistance occurs because of irregular use of drugs or discontinued treatment before the end of the prescribed course.

Prevention of Tuberculosis:

Patients with active tuberculosis are advised to:

- Stay home or in a private room (especially during the first weeks of infection).
- Air the room constantly.
- Cover the mouth and nose when talking, sneezing and coughing.
- Wear a face mask when moving or being around other people.
- Make sure to take drugs on time and for the whole course.
- All children are recommended to receive TB vaccine (BCG) at birth.

Complications:

Negligence of treatment of pulmonary tuberculosis may allow it to spread to other parts of the body, including the bones, kidneys, liver brain or heart.

Clinical Health Education Department

For further questions kindly contact us via email:

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